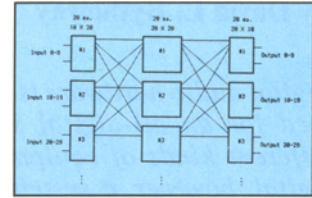


Highlights

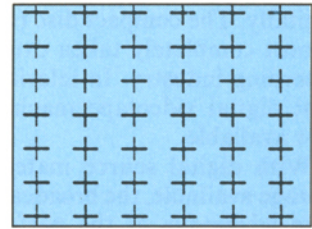
804 A Digital Audio Distribution Switcher System • D. L. Bytheway • Digital audio hardware is becoming more common in broadcasting. The need for an all-digital system that can successfully interface with different kinds of equipment is apparent. Since not all equipment is digital, however, a system that handles both high-quality analog and digital signals is needed. Synchronization and some possible digital switching topologies are discussed, and an advanced digital audio switching system for the AES/EBU digital audio standard is presented.



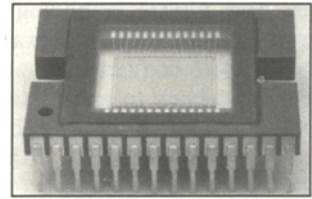
809 Texture and Depth Enhancement for Motion Pictures and Television • C. A. Mayhew • Various methods of texture and depth enhancement, collectively called Vision III™, have been under development for the past four years. By simultaneously providing both eyes with alternating images that differ in parallax and are time-displaced to coincide with the persistence of the visio-psychological memory rate, the processes relay depth information to the brain in a form that can be translated into a stable three-dimensional image.



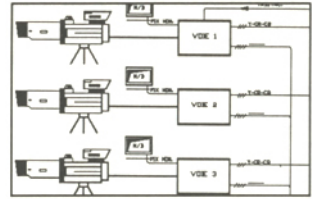
815 Compatible Hierarchy of Studio Standards • J. Chatel • This article, after presenting parameters of the different standards, discusses extensions of a hierarchical family of studio standards. It emphasizes the complementary levels of the hierarchy of standards when associated with a ranking of studio equipment. Members of the hierarchy are mainly described by the signal representation of their luminance component. Other levels can be derived from the different options for the color-difference signal representation. Practical considerations on performance and interface aspects allow the selection of the most appropriate options.



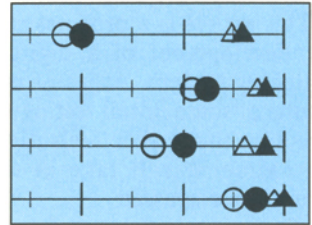
820 A New High-Speed Camera System for Broadcast Use — The Action Analyzer • Y. Fujita, F. Andoh, K. Mitani, M. Sugahara, and M. Fujiwara • A new high-speed color video camera for broadcast use provides high-quality slow-motion images, which previously had to be taken by a film camera. The system is made possible by a new solid-state imaging device, which has 250,000 pixels and an electronic shutter. It can take 360 field pictures/sec. An 800-Mbyte solid-state storage permits the recording of real-time events for up to 12 sec in a loop.



824 Progressive Scanning: An EDTV Gateway to HDTV • B. Tichit, G. Tonge, and J. P. Lacotte • This article describes joint experiments by Thomson Video Equipement and U.K. Independent Broadcasting Authority (IBA) that have demonstrated some of the capabilities of an extended-definition television (EDTV) system using 625/50/1 (progressive) scanning at source and display and 625/50/2 (interlaced) scanning for intermediate studio processing and transmission. Also described is the first application of this EDTV system.



829 A Digital Audio Transmission System Using Quadrature Modulation of the NTSC Television Carrier • T. Noda, I. Nakagawa, T. Shirosugi, K. Shinkawa, and S. Matsuura • A digital audio signal-transmission system, in which high-quality digital stereo audio is multiplexed in the video carrier using a quadrature modulation method, is proposed. This system is fully compatible with the NTSC terrestrial television system and employs three new methods to improve compatibility with the existing NTSC system; dicode modulation, line interleaving, and line-comb filtering.



837 High-Performance CCD Telecine for HDTV • R. Lees, L. Bernstein, H. Erhardt, R. Godden, G. Kennel, D. Kessler, A. Kurtz, J. Loveridge, L. Moore, and R. Sharman • This article describes a high-performance HDTV telecine designed and built by Eastman Kodak Research Laboratories in the U.S. and the U.K. HDTV telecines previously demonstrated have exhibited limited performance, particularly in the transfer of color negative film. The Kodak experimental telecine is designed to translate the superior image quality of today's finegrain film stocks to the HDTV signal format.

